

## specifications

Catalog Number	Description	Price
600	Ortho-Illuminator complete with three-point positioning device for microscope base; turret-mounted intensity and color filters; auxiliary lens; pinhole eyepiece; one 100 watt, 115 volt bulb; two way switch, cord and plug	\$178.00
607	Didymium Filter 2½ mm thick, 41 mm diameter	5.50
600-860	Auxiliary lens in mount for Abbe condenser N.A. 1.25, Achromatic-Aplanatic condensers N.A. 1.30, 1.40	13.50
602	Replacement bulb GE PH100S11 /3SC 100W, 115V, clear, CC13 filament, S.C. base	1.70

## representatives

### Sales Offices:

Atlanta	Minneapolis	Toronto
Boston	New York	Washington
Chicago	Orlando	•
Columbus	Philadelphia	International Division, Southbridge, Mass.
Dallas	Pittsburgh	
Detroit	St. Louis	
Houston	San Francisco	
Los Angeles	Seattle	



SPENCER

**American Optical Company**  
INSTRUMENT DIVISION      BUFFALO 15, NEW YORK

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IMPROVE

GRAPHY

Successful microscopy and photomicrography are dependent upon an efficient . . . controllable . . . and convenient source of illumination. The Ortho-Illuminator is specifically designed to satisfy these requirements . . . permits you to reveal most minute details with maximum clarity to the very limit of the resolving power of your microscope . . . eye fatigue is reduced and your work made easier.

## FEATURES . . . Permanent Alignment

Three-point positioning device (1, 2, 3) precisely locates and rigidly retains any make microscope equipped with horseshoe base. Once aligned, the microscope may be removed and easily repositioned against the locating device without disturbing absolute alignment.

### Koehler Type Illumination

Koehler illumination assures maximum performance of your microscope. Field diaphragm (9) and numerical aperture settings are simple to regulate accurately and efficiently. A near-parallel beam of light enters directly into the microscope condenser and evenly illuminates the entire field of view.

### Intensity Control

Three translucent, colorless filters — mounted into revolving turret (7) — and one clear aperture permit quick . . . easy control of intensity level without sacrifice of color temperature. The filters, located directly in front of the bulb, render a homogeneous beam of light . . . free of glare and extraneous heat. The optical system of the illuminator projects this secondary source of light . . . in accordance with the Koehler principle . . . into the microscope condenser and specimen. A clear aperture allows the light to pass through unscreened and is intended primarily for alignment purpose.

### Color Filters

Three color filters — day light, green and red — are contained in a second turret (6) . . . can be used in combination with any of the colorless, translucent filters. The use of color filters significantly enhances specimen detail and contrast during visual observation . . . and is essential in many types of black-and-white photomicrography. Special color compensating filters offered by Eastman Kodak, Corning and others for specific color photomicrography may be conveniently inserted into the auxiliary lens receptacle (4).

### Light Source

The light source is a high efficiency, inexpensive, standard 100 watt, 115 volt G. E. projection bulb . . . operates on AC or DC current without transformer or resistance; tungsten filaments are easily centerable by pair of centering screws (11). Full intensity of 3200° K. at rated voltage, is obtained when light switch (5) is toward the user . . . reduced intensity is provided by simply positioning the switch lever away from the operator . . . light is "OFF" when in neutral position.

### Auxiliary Lens

Ortho-Illuminator Model 600 is supplied complete with auxiliary lens (4) for use with standard N.A. 1.25 Abbe condenser and N.A. 1.30 or N.A. 1.40 Achromatic-Aplanatic condensers.

*When properly aligned and secured, the Ortho-Illuminator and microscope become a self-contained and integrated unit . . . well-balanced, rigid and sturdy to assure years of satisfaction and trouble-free service.*



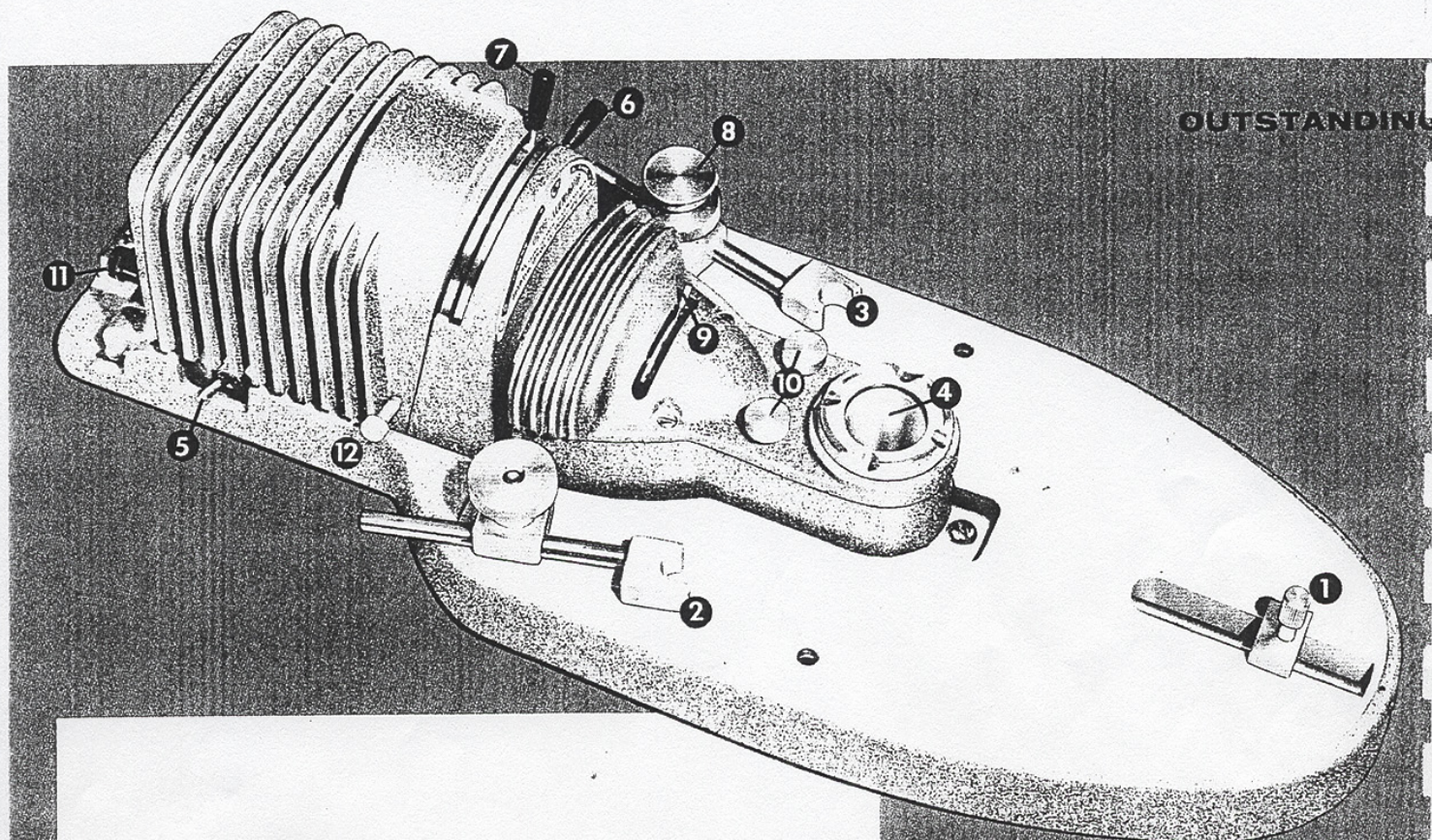


# Ortho-Illuminator

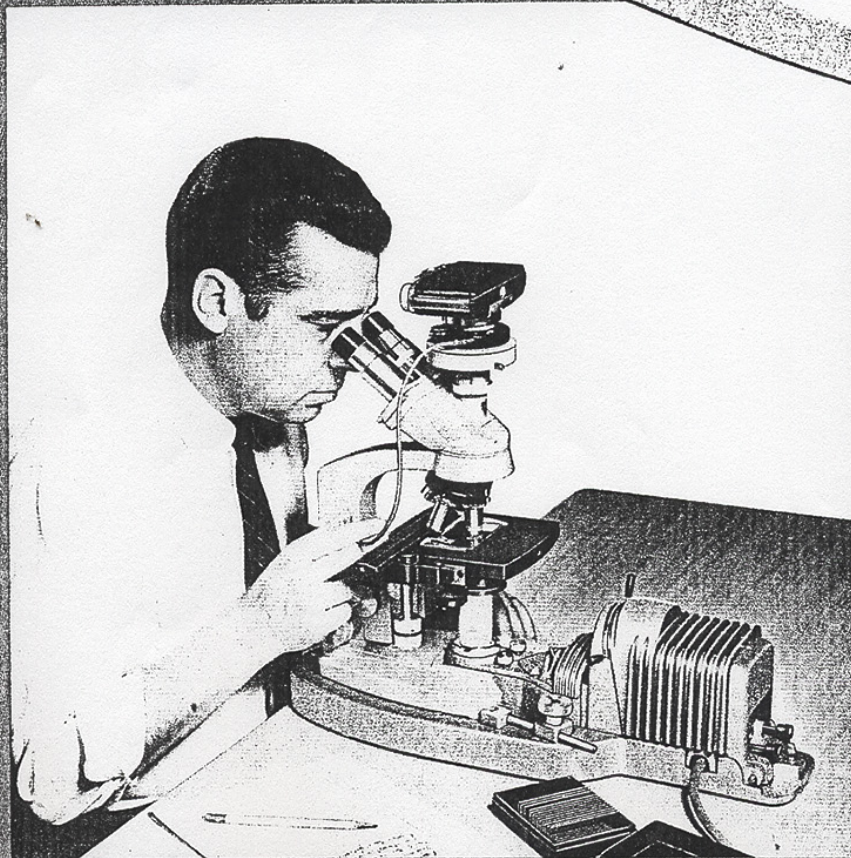
THE IDEAL ILLUMINATOR TO

YOUR RESULTS FOR BRIGHT FIELD ... PHASE ... INTERFERENCE

... POLARIZING ... AND DARK FIELD MICROSCOPY AND PHOTOMICRO



OUTSTANDING



- 1 2 3 Three-Point Positioning Device for Microscope
- 4 Auxiliary Lens
- 5 Light Switch
- 6 Color Filter Turret
- 7 Intensity Filter Turret
- 8 Pinhole Eyepiece
- 9 Field Diaphragm
- 10 Field Diaphragm Centering Screws
- 11 Filament Centering Screws
- 12 Lamp Housing Lock Screw

Ortho-Illuminator with Microstar XZTU-HAW

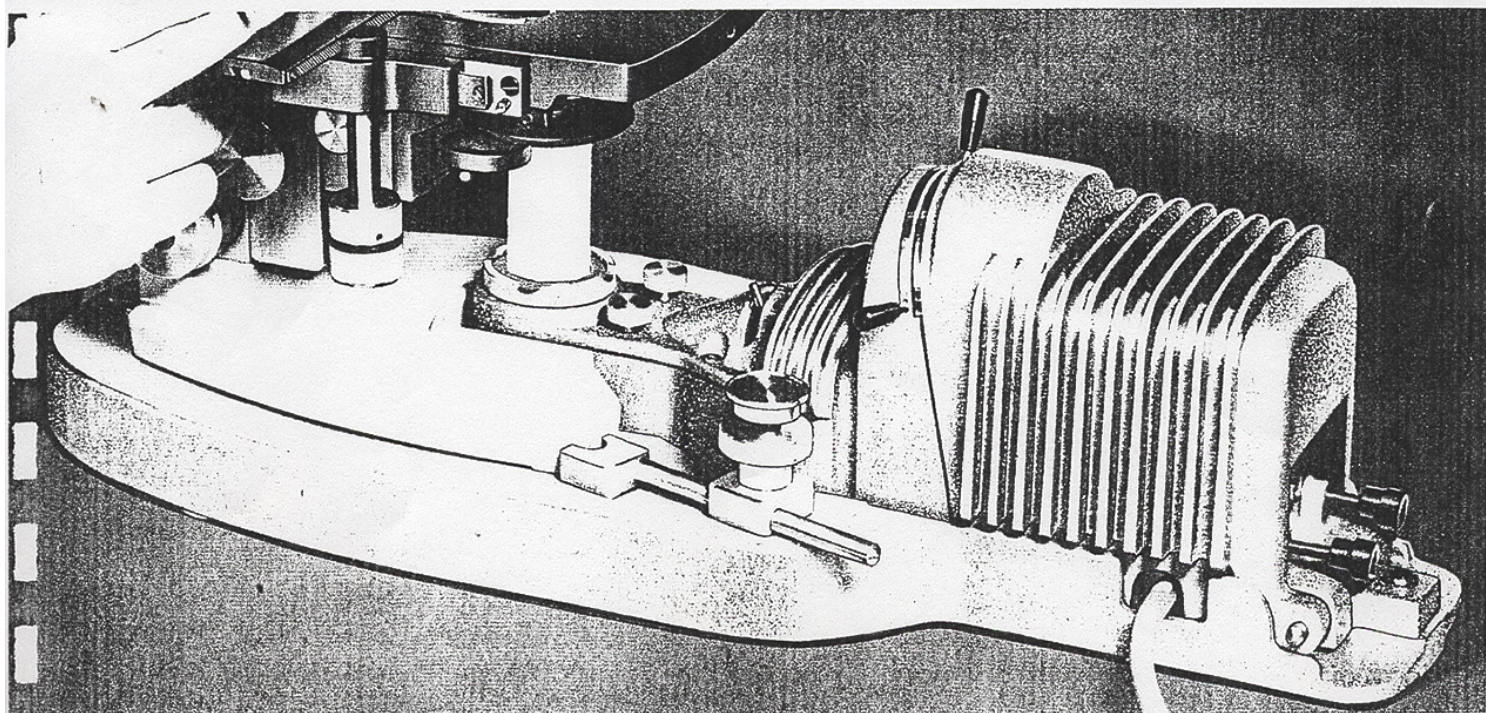




# *Ortho-Illuminator*

**... a new era in microscope illumination**

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Microscopy and Photomicrography



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